

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (previously presented) A banding system for piled products, such as securities, banknotes, checks and other similar documents comprising:

a machine frame,

a band feed mechanism disposed on said machine frame for feeding band material from a supply roll,

means for forming a loop with said band material around the products to be banded,

welding means to close said loop and

cutting means for cutting said band material,

said means for forming the loop comprising transporting means for transporting the band material around the product to be banded and

vacuum means connected to the transporting means for pressing the band material against the transporting means,

wherein said means for forming the loop are movable with respect to the machine frame between an operating position where said means for forming the loop are in contact with said band feed mechanism to perform the banding operation and an open position where said means for forming the loop are displaced away from the band feed mechanism to create an opening therebetween allowing a transfer of products to be banded between the band feed mechanism and the means for forming the loop.

2. (previously presented) A banding system as claimed in claim 1, wherein said means for forming the loop are movable in translation with respect to the band feed mechanism.

3. (previously presented) A banding system as claimed in claim 2, wherein said means for forming the loop are displaceable on said machine frame through sliding rail means disposed on said machine frame.

4. (previously presented) A banding system as claimed in claim 1, wherein said means for forming the loop are displaced by means of a piston.

5. (previously presented) A banding system as claimed in claim 1, wherein said transporting means comprise a plurality of transporting rolls connected by conveyor means.

6. (previously presented) A banding system as claimed in claim 5, wherein said conveyor means are rubber rings.

7. (previously presented) A banding system as claimed in claim 1, wherein said transporting means and said band feed mechanism are driven synchronously by means of a transfer belt mechanism.

8. (previously presented) A banding system as claimed in claim 1, further comprising a pressure means for applying pressure on said products during the banding operation.

9. (previously presented) A banding system as claimed in claim 8, wherein said pressure means is formed of a pressure stamp which is guided on the means for forming the loop and is displaceable with respect to the means for forming the loop.

10. (previously presented) A banding system as claimed in claim 1, wherein said vacuum means include a vacuum channel and means for generating vacuum into said vacuum channel in order to press said band material against said transporting means during transport of the band material around said products.

11. (previously presented) A banding system as claimed in claim 10, wherein said vacuum channel includes a first channel portion located in said machine frame and a second channel portion located inside said means for forming the loop and which connects to the first channel portion during the banding operation.

12. (previously presented) A banding system as claimed in claim 11, wherein said means for generating vacuum into said vacuum channel include a main vacuum pump coupled to the first channel portion.

13. (previously presented) A banding system as claimed in claim 12, wherein said means for generating vacuum into said vacuum channel further include an auxiliary vacuum pump coupled to the second channel portion.

14. (previously presented) A banding system as claimed in claim 11, wherein said means for forming the loop are constructed as a part substantially having an inverted U-shape and wherein the second channel portion located in said means for forming the loop is open on an inside area of the U-shaped part, where the band material is transported, and at one extremity of the U-shaped part which connects, during the banding operation, with a corresponding open extremity of the first channel portion located in said machine frame.

15. (previously presented) A banding system as claimed in claim 1, further comprising a pusher for moving laterally the banded products after the banding operation and freeing the banded products from the welding means once the loop is closed.

16. (previously presented) A banding system according to claim 1, having a substantially planar configuration which is substantially aligned with the plane in which said band material is transported.

17. (withdrawn) A banding process for piled products, such as securities, banknotes, checks and other similar documents comprising the following steps:

- a) displacing products to be banded onto a banding system comprising a band feed mechanism and means for forming a loop with band material around said products to be banded;
- b) transporting band material around said products to be banded;
- c) generating vacuum around said band material while it is transported around the products to be banded;
- d) attaching the band material to form a closed loop; and

e) evacuating the banded products,

wherein said step of displacing the products onto the banding system includes:

a1) displacing the means for forming the loop away from the band feed mechanism to create an opening therebetween;

a2) transferring the products to be banded through the opening between the band feed mechanism and the means for forming the loop; and

a3) displacing the means for forming the loop to get into operating contact with the band feed mechanism and allow the banding operation to take place.

18. (withdrawn) A banding process as claimed in claim 17, wherein the step of attaching the band material is made by welding or by glueing.

19. (withdrawn) A banding process as claimed in claim 17, wherein it comprises a cutting step of the band product once the closed loop is formed.

20. (withdrawn) A banding process as claimed in claim 17, wherein the displacement of the means for forming a loop with band material with respect to the band feed mechanism is made by translation.

21. (withdrawn) A banding process as claimed in claim 17, wherein the means for forming a loop with band material are displaced with respect to the band feed mechanism before and/or after the banding operation.

22. (withdrawn) A banding process as claimed in claim 17, wherein, after formation of the closed loop, the banded products are moved laterally so as to free the banded products from welding means used for attaching the band material.

23. (withdrawn) A banding process as claimed in claim 17, further comprising the step of applying pressure onto said products during the banding operation.

24. (previously presented) A banding machine comprising a plurality of banding systems as defined in claim 1, said banding systems being placed one next to the other.

25. (new) A banding system for piled products, such as securities, banknotes, checks and other similar documents comprising:

a machine frame,

a band feed mechanism disposed on said machine frame for feeding band material from a supply roll,

means for forming a loop with said band material around the products to be banded,

welding means to close said loop and

cutting means for cutting said band material,

said means for forming the loop comprising transporting means for transporting the band material around the product to be banded and

vacuum means connected to the transporting means for pressing the band material against the transporting means,

wherein said means for forming the loop are movable with respect to the machine frame between an operating position where said means for forming the loop are in contact with said band feed mechanism to perform the banding operation and an open position where said means for forming the loop are displaced away from the band feed mechanism to create an opening therebetween allowing a transfer of products to be banded between the band feed mechanism and the means for forming the loop;

wherein said vacuum means include a vacuum channel, the vacuum channel including a first channel portion located in said machine frame and a second channel portion located inside said means for forming the loop and which connects to the first channel portion during the banding operation and means for generating vacuum into said vacuum channel in order to press said band material against said transporting means during transport of the band material around said products; and

wherein said means for forming the loop are constructed as a part substantially having an inverted U-shape and wherein the second channel portion located in said means for forming the loop is open on an inside area of the U-shaped part, where the band material is transported, and

at one extremity of the U-shaped part which connects, during the banding operation, with a corresponding open extremity of the first channel portion located in said machine frame.